

REMARKS

Claims 1-14 are pending.

The indication in the Office Action that claims 3, 5-7, 10 and 12-14 are objected to but would be allowable if rewritten in independent form is appreciated. However, for the reasons set forth below, it is submitted that all claims are in condition for allowance.

The Office Action rejects claims 1-2, 4, 8-9 and 11 under 35 USC 103 over Ohkubo (US Pat. 6,621,250). This rejection is respectfully traversed.

The claimed invention as recited in claims 1 and 8 is directed to permit calculation of an offset value when a current value detected by a current sensor is switched from a negative value to a positive value. The inventors of the claimed invention determined that a hysteresis characteristic is generated in the relationship between the current and output voltage, that the smaller the absolute value of the current is, the smaller the amount of hysteresis that is generated, and that the calculation of the offset value to be most accurate should be made when the hysteresis is small, which occurs when the current value switches from a negative value to a positive value, or from a positive value to a negative value. As explained below, these features are not shown in the prior art.

The Office Action admits that Ohkubo does not disclose the determining device determining that the calculation of the offset value is permitted when the current value detected by the current sensor is switched from a negative value to a positive value. The Office Action asserts that it is obvious to recognize that the discharge and charge value are the same meaning with the negative and positive value, as also supposedly well known in the existing battery capacity measuring technology, referring to Oba (JP 405199605A) showing a current sensor with a positive value and a negative value.

However, the claimed invention does not recite “the discharge and charge value are the same meaning with the negative and positive value” or “a current sensor having a positive value and a negative value” as allegedly disclosed by Oba. Instead, the claimed invention permits calculation of the offset value when the current value detected by the

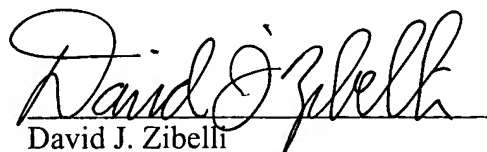
current sensor is switched from a negative value to a positive value, or from a positive value to a negative value. As explained above, the offset value is calculated when the current value is switching between positive and negative values (or vice versa) because at this time the hysteresis is small and the offset value may be calculated most accurately at this time. The prior art does not disclose or suggest to permit calculation of the offset value at the time of switching between positive and negative current values (or vice versa). Thus, even if combined as suggested in the Office Action, the prior art would not have rendered obvious claims 1 and 8 or any of the dependent claims. Withdrawal of the rejection is requested.

For the above reasons, it is submitted that the application is in condition for allowance. Prompt consideration and allowance are solicited.

The Examiner is invited to contact the undersigned at (202) 220-4232 to discuss any matter concerning this application.

Applicants do not believe that any additional fees are required in connection with this submission. Nonetheless, Applicants authorize payment of any additional fees under 37 C.F.R. § 1.16 or § 1.17 or credit of any overpayment to Deposit Account No. 11-0600.

Respectfully submitted,


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